

What is claimed is:

1. A device for polishing digital storage discs having the features below:
 - a polishing plate (14) rotatably driven about a vertical axis the upper side of which has a polishing cloth, wherein:
the polishing cloth is interrupted by a ring-shaped recess (18) concentric with the axis of the polishing plate (14),
at least one circular load-applying plate (16) from the planar lower side of which a projection (32) centrally protrudes to appropriately engage the central hole of the storage disk,
a roller holder (28) which has at least one idling roller (36) and one driven roller (38) against which the circumference of said load-applying plate (16) gets into engagement when said plate is carried along while lying on said polishing plate (14), wherein:
the position of said rollers (36, 38) is such that the projection of said load-applying plate (16) is located above said ring-shaped recess (18) when said load-applying plate (16) bears on the rollers (36, 38),
a drive (44) for said driven roller (38), and
mechanism for feeding a polishing medium to said polishing cloth.

- 5 2. The device as claimed in claim 1, characterized in that said polishing plate (14) is disposed in a tray (10).
3. The device as claimed in claim 1, characterized in that said polishing cloth is positioned on two annular surfaces (20, 22) of said polishing plate (14) which are separated by said ring-shaped recess (18) and said polishing plate (14) has an groove-shaped indentation adjacent to the inner annular surface (22).

4. The device as claimed in claim 3, characterized in that the tray-like indentation (16) is connected to a discharge duct (24) leading to said tray (10).
5. The device as claimed in claim 4, characterized in that said discharge duct (24) extends up to the circumference of said polishing plate (14) and crosses said ring-shaped recesses (18).
6. The device as claimed in any one of claim 1, characterized in that said feeding mechanism has an adjustable nozzle (84) arranged above the polishing plate (14) which communicates with a source of the polishing medium and which communicates with at least one flow communication path the lower end of which is led to the polishing cloth.
10
7. The device as claimed in claim 6, characterized in that said flow communication path is formed by a wire (94) along which the polishing medium runs.
15
8. The device as claimed in claim 6, characterized in that a chamber (78) communicating with said source of said polishing medium is arranged above said nozzle (84) and a return line (80) communicates with said chamber (78) to permanently agitate the polishing medium between said source and chamber (78).
20
9. The device as claimed in claim 7, characterized in that the upper end of said wire (94) is clamped below a flow-through bore (86) in the nozzle body.
25
10. The device as claimed in any one of claim 1, characterized in that the driving motor (44) is mounted on said roller holder (28).

11. The device as claimed in any one of claim 1, characterized in that said idling roller (36) is carried farther inwardly with respect to said driven roller (38).
12. The device as claimed in claim 10, characterized in that said driven roller (38) is directly seated on the vertically arranged shaft (42) of an electric motor (44).
13. The device as claimed in any one of claim 1, characterized in that said roller holder (28) is adjustably mounted on a stationary support (58).

10 14. The device as claimed in any one of claim 1, characterized in that said driven roller (38) circumferentially has a plurality of rings (54) which are preferably square-shaped in section and are made of a flexible material.

15 15. The device as claimed in any one of claim 1, characterized in that said circumference of said load-applying plate (16) has a knurled area with which the driven roller (38) can be brought into engagement.

16. The device as claimed in any one of claim 1, characterized in that said projection (32) of a load-applying plate is defined by an exchangeable pin (30) which is introduced into the load-applying plate (16) from top.

20 17. The device as claimed in any one of claim 1, characterized in that a cloth is adhered to the lower side of the load-applying plate (16).

25 18. The device as claimed in any one of claim 1, characterized in that said polishing plate (14) is made of aluminum or another light alloy.